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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,578	10/03/2000	Toshinori Nagahashi	105738	5671

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

LIANG, LEONARD S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/677,578

Applicant(s)

NAGAHASHI, TOSHINORI

Examiner

Leonard S Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 10/04/1999. It is noted, however, that applicant has not filed a certified copy of the 11-283247 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamada et al (US Pat 6290328).

Yamada et al discloses:

- {claim 1} A method for controlling a printer that has a printing head for printing data (abstract); examining a relationship of a position, in each printing pass, of each of a plurality of pins provided in a vertical direction of the printing head to a plurality of raster lines to be printed in a predetermined printing range, based on a vertical resolution of the print data, when a unit of vertical transfer of the printing head is not a reciprocal of an integral vertical resolution of the print data, and a pitch of the pins of the printing head is not any one of an integral multiple

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of the vertical resolution and the reciprocal of the integral vertical resolution (abstract; column 1, lines 5-23, 65-67; column 2, lines 1-28); preparing a raster-line/pin-relationship table in which pins to be actuated for printing the raster lines to be printed are determined in each printing pass based on the relationship between the position of the pins and the raster lines (figure 9; column 2, lines 15-28); determining a number of printing passes and a position of a print-starting raster line (column 9, lines 40-44); consulting the raster-line/pin-relationship table according to the determination; printing the predetermined printing range by actuating the pins in each printing pass based on the raster-line/pin-relationship table (column 2, lines 15-28; column 11, lines 1-28); the pitch of the pins of the printing head, the amount of the unit of vertical transfer of the printing head, the position of the print-starting raster line, and a number of passes in the horizontal direction required for printing the predetermined printing range (column 1; column 2, lines 1-28; column 9, lines 40-44; column 11, lines 1-28)

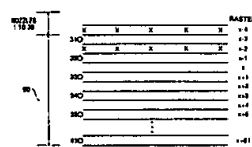


FIG. 8A

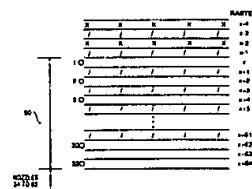
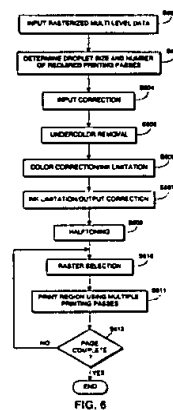


FIG. 9B

FIG. 9

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- {claims 2 and 7} a plurality of the raster-line/pin-relationship tables being prepared according to the position of the print-starting raster line (figure 6, reference S610; column 9, lines 40-44)
- {claims 3 and 8} the position of the print-starting raster line being determined based on the print data under a condition of the vertical resolution of the print data, the pitch of the pins of the printing head, and the unit of vertical transfer of the printing head (column 1; column 2, lines 1-28)
- {claims 4 and 9} any one of the plurality of raster-line/pin-relationship tables being selected according to the position of the print-starting raster line which was determined (figure 6, reference S610; column 9, lines 40-44)



- {claims 5 and 10} the pins used in each printing pass being actuated by consulting the selected raster-line/pin-relationship table (column 2, lines 5-28; column 11, lines 1-28)
- {claim 6} A print controlling device; a raster-line/pin-relationship table; a print data forming unit; a printer driver; a printing head; a data transmitting unit; the printing range based on the vertical resolution of the print data, the pitch of the

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pins of the printing head, an amount of a unit of vertical transfer of the printing head, the position of the print-starting raster line, and a number of passes in a horizontal direction required for printing the predetermined printing range (figure 6; figure 9; column 1; column 2, lines 1-28; column 9, lines 40-44; column 11, lines 1-28)

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kanaya et al (US Pat 6170932) discloses a printing system, method of printing, and recording medium to realize the method.

Fujita et al (US Pat 6003970) discloses an ink-jet recording apparatus and method.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (703) 305-4754.


The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

lsl

LSL
May 16, 2003


JUDY NGUYEN
PRIMARY EXAMINER